August 11, 2023 (DRAFT)

ATTN: East Waterway Proposed Plan
c/o Laura Knudsen
U.S. EPA Region 10, 1200 Sixth Avenue, Suite 155
Superfund Records Center, Mail Stop 17-C04-1
Seattle, WA 98101

Ms. Knudsen:

The following are comments on the U.S. Environmental Protection Agency's (EPA) Proposed Plan for the East Waterway Superfund Site (Site) submitted by Seattle Iron & Metals Corporation (SIMC). From approximately 1949 through 1998, SIMC operated a metals recycling facility on Harbor Island. Companies affiliated with SIMC signed the 1996 Consent Decree with EPA to remediate the soil and groundwater operable unit within the Harbor Island Superfund Site.

The Impracticability of Achieving EPA's Cleanup Goals

EPA characterizes the cleanup of the Site, which will require removal of nearly 1 million cubic yards of sediments, as an interim remedial action. The Proposed Plan explains that post-construction monitoring of the interim action as well as continued monitoring of upstream loading will provide data to better predict what a final remedy can achieve in the long-term. EPA states that its long-term objective is to reduce PCB concentrations in sediments to non-urban background for Puget Sound which is 2 parts per billion (ppb). EPA expects this long-term goal can be achieved with aggressive source control efforts throughout the Green/Duwamish watershed.

EPA is disingenuous in suggesting to the public that 2 ppb PCBs is achievable within the Site. There is ample information in the administrative record that explains why EPA's long-term objective is not realistic, including the Port of Seattle's (Port) letter to EPA dated August 8, 2018 (Port's 2018 letter), Appendix A to the 2019 Final Feasibility Study (Appendix A), and a Technical Memorandum: Final Anthropogenic Background Evaluation dated July 2021 (Technical Memorandum).

As described in the Port's 2018 letter, the Site is an urban, industrial working waterway with a large mass of legacy contamination in sediments, ongoing contaminant loading from the LDW and Green River, resuspension of contaminants within the Site through propeller wash from large container ships, and discharges of industrial wastewater, stormwater, and municipal combined sewer overflows (CSOs) that drain the surrounding streets and current industrial operations.

Based on these facts, the recurring theme throughout the Port's 2018 letter is that no amount of dredging or active remedial measures will result in achievement of cleanup levels based on "natural background" concentrations.

Appendix A summarizes the outcome of modeling the hypothetical maximum remediation scenario together with modeling the long-term site-wide concentrations following source control of lateral inputs in the Lower Duwamish Waterway (LDW) and East Waterway. The modeling predicts that surface sediments in East Waterway will not attain natural background concentrations, *i.e.,* a PCB concentration of 2 ppb. Appendix A states that the lowest technically-possible concentration for total PCBs that could be achieved following construction of the cleanup is 57 ppb.

The Technical Memorandum acknowledges that source control efforts have reduced contaminant loadings to the Site but concludes, based on a comprehensive evaluation of existing datasets corresponding to the above-described inputs, that the anthropogenic background concentration for PCBs is 31 micrograms per kilogram (equivalent to ppb).

None of these documents are referenced in the Proposed Plan. Unless EPA has a magical plan to create far more effective source control measures than are currently in place throughout the LDW/Green River watershed, the future concentrations of PCBs in sediments will likely never fall beneath anthropogenic background and certainly not approach 2 ppb.

The Problem with Characterizing The Cleanup as an Interim Remedial Action

Accordingly, EPA's justification for characterizing the cleanup as an interim remedial action is questionable. EPA may not be able to predict now with certainty what PCB concentrations in sediments will be after the proposed massive dredging project has been completed but it would be reasonable to predict that they will not be below 31 ppb and will likely be around

57 ppb. EPA has sufficient information at this time to determine reasonable final cleanup levels based on what can realistically be achieved at the East Waterway.

By describing the cleanup as an interim remedial action, the Proposed Plan implies that EPA will require additional cleanup after the proposed massive dredging project fails to achieve its non-realistic objective of 2 ppb PCBs in sediments. The potential for future cleanup actions will strongly discourage potentially responsible parties (PRPs) from committing to pay the substantial cost of the interim remedial action not knowing when and whether EPA may require further expensive remediation in the future based on its quixotic quest to achieve natural background concentrations in the East Waterway.

Recontamination of East Waterway is a Significant Concern

In the Proposed Plan EPA confidently asserts that prior to implementing the interim remedial action it will ensure that major sources are sufficiently controlled to minimize the risk of recontamination. However, the Proposed Plan does not identify the major sources or identify criteria and a strategy for evaluation of the performance of source control actions to confirm control of major sources is sufficient to initiate the interim remedial action.

The Proposed Plan acknowledges that recontamination is a current problem in East Waterway when it notes that the 9-inch layer of clean sand placed by the Port on a dredged surface in 2004 and 2005 is recontaminated. The Proposed Plan does not identify a potential source of the contamination but observes that the "contaminant concentrations in the areas remain lower than prior to the removal action."

EPA does not state, however, whether the contaminant concentrations are lower than the remedial action levels stated elsewhere in the Proposed Plan that define the need for active remediation. It appears that the Proposed Plan requires removal of the areas covered by the layer of "clean sand" placed in 2004 and 2005. EPA provides no assurance whatsoever that the same problem of recontamination and re-remediation will not occur after the interim remedial action is completed.

Further, EPA does not explain when it will make a decision on whether to require additional remediation measures. EPA states that it will assess data during and after construction of the interim remedy, including information on the effect of upstream and lateral contamination sources, and will involve the public, State, Tribes, and the likely performing

parties. It is not clear whether this could be a year, five years, or even 20 years after the interim action has been completed. Further, as noted above, the Proposed Plan does not describe a strategy or criteria for evaluation of the effectiveness of source control actions in reducing contaminant concentrations in sediments.

If EPA expects PRPs to implement the cleanup of East Waterway it needs to provide more clarity on how and when it will evaluate the effectiveness of the work and the potential for future cleanup measures. The substantial uncertainty regarding the extent of remediation work that will actually be required makes it very difficult for companies to determine whether to participate in performing or funding the cleanup.

The Connection Between the Cleanup of East Waterway and Other Major Dredge Projects is not Clear

The cleanup of East Waterway is not an isolated project. Other major dredge projects are proposed for East Waterway and immediately upstream of East Waterway. The Proposed Plan does not explain how the three major dredge projects will be coordinated, *i.e.,* how the interim remedial action will be coordinated with the dredging of the Lower Reach of the LDW and the U.S. Army Corps of Engineers (Corps) proposed navigation dredging in the East Waterway.

For example, will EPA authorize commencement of the interim remedial action prior to the completion of remedial action of the Lower Reach of the LDW, which is immediately upstream of East Waterway? Resuspension of dredge residuals in the Lower Reach is a potential source of recontamination in East Waterway. In the event the Lower Reach dredging is performed after the East Waterway interim action and does recontaminate East Waterway, who will be responsible for the potential re-remediation of East Waterway?

In addition, the Proposed Plan states that the Corps intends to deepen the Deep Main Body reach in East Waterway from the existing depth of -51 feet MLLW to -57 feet MLLW following cleanup of East Waterway. The Proposed Plan does not explain how EPA's assessment of the effectiveness of the interim remedial action may affect the timing of the Corps' dredge project. Will EPA authorize the Corps to start dredging before it has evaluated the potential for recontamination of East Waterway? Will the Corps proceed with its project if the cleanup of East Waterway is not confirmed as a final action?

There are likely many more questions about how the three major dredge projects will be coordinated. EPA should better explain how the three projects will work together in a reasoned and orderly manner.

EPA Does Not Objectively Characterize the Risk to Human Health

The Proposed Plan states that the primary factor shaping the human health risk assessment and in developing risk-based cleanup goals is Tribal members' potential exposure to contamination through consumption of resident fish and shellfish. The baseline human health risk assessment (BHRRA) used Tribal consumption rates in calculating potential exposure to resident fish and shellfish.

The Proposed Plan, however, does not acknowledge the substantial uncertainty described in the 2012 BHHRA associated with the use of Tribal consumption rates. Again, the fact that East Waterway is a large commercial seaport is critical in assessing risks to human health. The following statements from the 2012 BHHRA highlight the problem:

> The majority of the EW is maintained as a federal navigation channel. The EW shoreline is highly developed and primarily composed of over-water piers (aprons), riprap slopes, constructed seawalls, and bulkheads for industrial and commercial use…Because of the industrial nature of the waterway, there are currently a limited number of public access points along the shoreline, no actual beaches, and limited intertidal areas. Section B.1, page 2.
>
> As with the LDW, the ability of EW habitats to support the clam populations that would be necessary to sustainably achieve the clam consumption rates that have been assumed in the EW HRRA is unknown. Clam habitat in the EW is limited as a result of the presence of steep banks or riprap, concrete, and other construction materials. Section 6, page 270.

Given the industrial nature of East Waterway, it is apparent that EPA's assumptions on consumption rates may not be valid. The National Contingency Plan requires EPA to identify a reasonable maximum exposure scenario when evaluating risks to human health. In EPA's words, "reasonable maximum" means "that only potential exposures that are *likely to occur* will be included in the assessment of exposures." 55 Fed. Reg. 8666 at 8710 (March 8, 1990) (emphasis added).

The BHHRA for East Waterway assumes an adult will consume 13 meals per month of resident fish from East Waterway over the next 70 years. Section B.8, page 337. Nowhere in the Proposed Plan does EPA evaluate the likelihood that a significant number of people are consuming that much resident fish from East Waterway or that enough resident fish are and will be available in East Waterway to sustain that level of consumption. The probability that this level of consumption is *not likely to occur* given the physical nature and current and expected future use of East Waterway undermines EPA's assertion that the magnitude and substantial expense of the proposed interim remedial action is necessary to protect human health.

Conclusion

SIMC does not object to the cleanup of East Waterway. SIMC is concerned, however, that EPA's objectives for the cleanup are unrealistic and that EPA has failed to identify with specificity when and how the cleanup will be performed to avoid the very real potential for recontamination of sediments in East Waterway and thus additional remediation. EPA needs to reevaluate what is truly necessary to protect human health and the environment given the current and expected future use of East Waterway and the likely ongoing contributions of contaminants from upstream and lateral sources. EPA's plan to achieve "natural background" in East Waterway is not realistic. EPA should reconsider its plan and develop a remediation strategy that is an effective and implementable approach for the cleanup of East Waterway.